

ABSTRACT

A method for frame synchronization of a receiver in a wireless communication system wherein data is transmitted in frame units in a multipath environment begins by extracting data samples for a predetermined window size. A training sequence corresponding to a given cell parameter is generated. The data is correlated with the training sequence over different lags to locate the position of the first significant path, which defines the beginning of the frame. The correlated data is accumulated N times for each lag position to produce at least one accumulation vector. A most significant path value and position is determined that is the largest value among the accumulation vectors. A frame synchronization correction value is calculated based on the difference between the first significant path position and a constant called frame offset. The frame synchronization is adjusted based upon the frame synchronization correction value.